

Claims

- 1 Process for the transesterification of fat and/or oil by means of alcoholysis
5 wherein, in order to carry out the alcoholysis, an alkanol, in particular a
monohydric alkanol, is added in excess to the fat and/or oil to be
transesterified, characterised in that at least one alkanol fatty acid ester is
added to the fat and/or oil in a quantity such that the reaction mixture
produced thereby consists of one phase.
- 10 2. Process according to claim 1, characterised in that the alkanol fatty acid
ester added is selected from among methyl esters, ethyl esters and/or
propyl esters.
- 15 3. Process according to claim 1 or 2, characterised in that the alkanol fatty
acid ester is added in a quantity of 5 to 50 wt.%, particularly preferably 12
to 20 wt.%, based on the fat and/or oil.
- 20 4. Process according to one of claims 1 to 3, characterised in that, in order
to carry out the reaction, a catalyst which is soluble in the reaction mixture
is added.
- 25 5. Process according to one of claims 1 to 3, characterised in that, in order
to carry out the reaction, a metal salt of an amino acid or of an amino acid
derivative which is insoluble in alkanols and in the reaction mixture is
added to the reaction mixture.
- 30 6. Process according to claim 4, characterised in that the alcoholysis is
catalysed by dissolved alkali metals or by alcoholates of the alkali metals.
- 35 7. Process according to claim 5, characterised in that the metal component
of the catalyst is calcium, strontium, barium, another alkaline-earth metal
or a heavy metal, in particular silver, copper, zinc, manganese, iron,
nickel, cobalt, lanthanum or another rare-earth metal.
- 40 8. Process according to one of claims 5 or 7, characterised in that the amino
acid component of the catalyst contains quaternary nitrogen or a
guanidino group.
9. Process according to one of claims 5 or 7, characterised in that the
catalyst is a heavy metal salt of arginine, in particular the zinc salt or the
cadmium salt of arginine.

10. Process according to one of claims 1 to 9, characterised in that the content of free fatty acids in the fat and/or oil to be transesterified is less than 0.5 wt.%, in particular less than 0.1 wt.%.

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11. Process according to one of claims 1 to 10, characterised in that the transesterification is carried out at temperatures within the range of 80°C to 160°C, preferably within the range of 100°C to 150°C.

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12. Process according to one of claims 1 to 11, characterised in that the alkanol fatty acid ester added to the reaction mixture is recirculated to the process from the product flow resulting from the transesterification.